JS 10/21/21
RJA 2/18/22

SAT Report for Case # P-19-0007

General

[redacted]

Report Status: Complete
Status Date: 12/19/2018
CRSS Date: 12/06/2018
SAT Date: 12/07/2018
SAT Chair: William Irwin
Consolidated PMN? N
Consolidated Set:
Submitter: Allnex USA Inc.
CAS Number: [redacted]
Ecotox Related Cases:
Health Related Cases: [redacted]
Chemical Name: [redacted]
Use: Intended use: Coating resin binder applied to metal substrates. This is a Polymer Exemption E1. [redacted]
Analogues (same use): [redacted]
Patents (same use):
None.
Trade name: [redacted]
PV Max (kg/yr): [redacted]
Ecotox Assessor: Nguyen, Amelia
Fate Assessor:
Health Assessor: Surapureddi, Sailesh

Physical Chemical Information

Molecular Weight:	[redacted]	**Physical State - Neat:**	Solid (est.)		
Percent 500:	[redacted]	**Percent 1000:**	[redacted]		
Melting Point (Measured):		**Melting Point (est):**		**MPD (EPI):**	
Vapor Pressure:		**Vapor Pressure (est):**	<0.000001	**VP (EPI):**	
Water Solubility:		**Water Solubility (EST):**	<0.000001	**Water Solubility (EPI):**	
Log Kow:				**Log Kow (EPI):**	
Log P:		**Log P Comment:**			

SAT Concern

Ecotox Rating (1):	1	**Ecotox Rating Comment (1):**	
Ecotox Rating (2):		**Ecotox Rating Comment (2):**	
Health Rating (1):	1-2	**Health Rating Comment (1):**	
Health Rating (2):		**Health Rating Comment (2):**	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
3	1	1	

Exposure Based Review (Health)?	N
Exposure Based Review (Ecotox)?	N
SAT Keywords:	Irr, Devel

Fate Assessment Summary:	P-19-0007 FATE: MW = [redacted] with [redacted]% < 500 and [redacted]% < 1000 Solid S = Negl. VP < 1.0E-6 torr at 25 °C (E) BP > 400 °C (E) H < 1.00E-8 (E) POTW removal (%) = 90 via sorption Time for complete ultimate aerobic biodeg > mo Sorption to soils/sediments = v.strong PBT Potential: P3B1 FATE: Migration to ground water = negl
Removal in WWT/POTW (Overall):	90

Condition	Rating Values w/ Rating Description	Comment
WWT/POTW Sorption:	3	
WWT/POTW Stripping:	4	
Biodegradation Removal:	4	
Biodegradation Destruction:		
Aerobic Biodeg Ult:	4	

Condition	Rating Values w/ Rating Description	Comment
Aerobic Biodeg Prim:		
Anaerobic Biodeg Ult:	4	
Anaerobic Biodeg Prim:		
Hydrolysis (t1/2 at pH 7,25C) A:		
Hydrolysis (t1/2 at pH 7,25C) B:		
Sorption to Soils/Sediments:	1	
Migration to Ground Water:	1	
Photolysis A, Direct:		
Photolysis B, Indirect:		
Atmospheric Ox A, OH:		
Atmospheric Ox B, O3:		

Health Assessment

Health Summary:	Absorption of the parent molecule is expected to be NIL all routes based on p-chem properties and unknown for the low molecular weight fractions. There is concern for irritation based on the SDS. There is low concern for developmental toxicity from the presence of low amounts of the [redacted]
Routes of Exposure:	Dermal , Oral, Inhalation

Test Data Submitted

Test Data Submitted:	

Ecotox Assessment

Test organism	Test Type	Test Endpoint	Predicted	Measured	Comments
Fish	96-h	LC50	*		
Daphnid	48-h	LC50	*		
Green Algae	96-h	EC50	*		
Fish	-	Chronic Value	*		
Daphnid	-	Chronic Value	*		
Green Algae	-	Chronic Value	*		

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comment
Acute Acquatic:	*			* = No effects at saturation for acute fish, daphnid, and green algae. Because hazards are not expected up to the water solubility limit, acute concentration of concern was not identified.
Chronic Acquatic:	*			* = No effects at saturation for acute fish, daphnid, and green algae. Because hazards are not expected up to the water solubility limit, chronic concentration of concern was not identified.

Ecotox Route of Exposure?	No releases to water

Factors	Values	Comments
SARs:	Polyanionic Polymers	
SAR Class:	Polymer-anionic-[redacted]-insoluble	
TSCA NCC Category?	Polyanionic Polymers (Momomers)	

Recommended Testing

Ecotox
Value Comments
Predictions are based on SARs for polyanionic polymers (insoluble); MW [redacted] with [redacted]% <500 and [redacted]% <1000; solid (est.) with an unknown MP (P); S = Negligible (P); effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.

Ecotox
Factors Comments
Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risk because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA determined environmental hazard for this new chemical substance based on SAR predictions for anionic polymers (special class within ECOSAR v.2.0). This substance falls within the TSCA New Chemicals Category of Polyanionic Polymers (Monomers). Acute and chronic toxicity values estimated for fish, aquatic invertebrates, and algae are all no effects at saturation.. These toxicity values indicate that the new chemical substance is expected to have low environmental hazard. Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.

Environmental Risk: Risks to the environment were evaluated by comparing estimated surface water concentrations with the acute and chronic concentrations of concern. Risks to the environment were not identified based on low hazard.